

REMARKS

The application has been amended to place the application in condition for allowance at the time of the next Official Action.

Claims 4-6 were previously pending in the application. Claims 7 and 8 are added. Therefore, claims 4-8 are presented for consideration.

Claims 4-6 were rejected as unpatentable over MOON et al. U.S. 2002/0093614 in view of CHOO et al. 6,642,979. This rejection is respectfully traversed.

Claim 4 is amended and recites forming a first inorganic insulating film on at least source and drain electrodes of thin film transistors. Claim 4 also recites forming first contact holes in the first inorganic insulating film for connecting the common wiring and the common electrode to each other. Claim 4 further recites forming second contact holes in the first inorganic insulating film for connecting the thin film transistors and the pixel electrodes to each other using at least dry etching. Claim 4 still further recites forming third contact holes in a second inorganic insulating film so as to be superposed on the first contact holes and forming fourth contact holes in the second inorganic insulating film so as to be superposed on the second contact holes.

The Official Action offers MOON et al. as teaching the first inorganic insulating film and the first and second contact

holes. The Official Action offers CHOO et al. as teaching a second inorganic film and third and fourth contact holes.

However, neither of the references teaches that for which it is offered.

First, the inorganic insulation film of MOON is not formed on at least the source and drain electrodes of the thin film transistors of MOON as required to meet that limitation of claim 4. Rather, inorganic insulation film 122 of MOON is formed on gate electrode 121 as seen in Figure 6B of MOON. As disclosed in paragraph [0041] of MOON, the TFT includes a gate electrode 121, a source electrode 123 and a drain electrode 125. Since film 122 is formed on the gate electrode 121 and not the source and drain electrodes 123, 125, MOON does not meet the limitation of a first inorganic insulating film formed on at least the source and drain electrodes of a thin film transistor.

Second, the contact holes of MOON are for connection to the common electrode 117 as seen in Figure 7C and for the second storage electrode 129 as also seen in Figure 7C, not for connection to the common electrode and the thin film transistor.

Moreover, the contact holes 145, 143 of MOON are through different insulating layers. As seen in Figure 7C of MOON, the first contact hole 145 is through layer 122. However, the second contact hole 143 is through insulating layer 130. MOON does not teach or suggest first and second contact holes through a first inorganic insulating film.

Third, with respect to CHOO, this reference teaches first and second contact holes through first and second insulating layers, not a third contact hole superposed on a first contact hole and a fourth contact hole superposed on a second contact hole as recited. As disclosed on column 8, lines 33-44 of CHOO, a second passivation layer 135 is formed on first passivation layer 127 and then a contact hole 131 is formed through these layers to drain electrode 123.

Accordingly, a single contact hole is formed through two passivation layers in CHOO. CHOO does not teach or suggest forming a third contact hole in a second insulating film so as to be superposed on a first contact hole (previously formed in a first insulating film) as recited.

The above-noted features are missing from each of the references, are absent from the combination and thus would not have been obvious to one having ordinary skill in the art.

Claim 5 depends from claim 4 and further defines the invention and is also believed patentable over the proposed combination of references.

Claim 6 is amended and recites a thickness of the inorganic insulating film is set so that when contact holes for connecting the common wiring and the common electrode to each other are formed by dry etching, the thickness prevents pinholes created by the dry etching from penetrating through an entirety of the insulating film.

Neither of the references discusses the problems of pinholes. Therefore, their combination would not suggest using a specific thickness of an insulating film to prevent pinholes from penetrating through an entirety of the insulating film. Accordingly, claim 6 is believed patentable over the proposed combination of references.

New claim 7 is directed to a specific thickness of the insulating film. Support for new claim 7 can be found on page 22, lines 5-8.

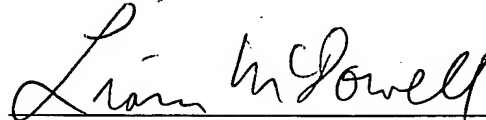
New claim 8 is directed to the embodiment disclosed with respect to Figures 5-17C and recites that contact holes are formed at a ratio of one contact hole to a plurality of the pixels with respect to the pixels being divided and defined by the scan lines and the signal lines. The proposed combination of references does not disclose or suggest what is recited in claim 8.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

A handwritten signature in cursive script, reading "Liam McDowell", is written over a horizontal line.

Liam McDowell, Reg. No. 44,231
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

LM/lrs